

Claims

1. A delivery device for delivering an implant to an anatomical site in a body of a patient, the device comprising,
a handle, and
a shaft having proximal and distal ends and shaped to describe a plurality of curves substantially in a single plane along its length, the proximal end of the shaft being attached to the handle.
2. The delivery device of claim 1, wherein the distal end of the shaft includes a substantially straight portion bent at an angle relative to the shaft.
3. The delivery device of claim 2, wherein the angle is determined to accommodate a pubic bone of a patient.
4. The delivery device of claim 2, wherein the bend is in a direction toward a pubic bone of a patient to reduce likelihood of inadvertently puncturing internal organs.
5. The delivery device of claim 2, wherein the angle relative to the shaft is about 90 degrees.
6. The delivery device of claim 2, wherein the angle relative to the shaft is greater than about 90 degrees.
7. The delivery device of claim 2, wherein the angle relative to the shaft is less than about 90 degrees.
8. The delivery device of claim 1, wherein a most distal one of the plurality of curves includes a concave portion and a convex portion and the bend is formed toward the concave portion.

9. The delivery device of claim 1, wherein at least one of the curves describes an arc of greater than about 45 degrees.
10. The delivery device of claim 1, wherein at least one of the plurality of curves describes an arc of greater than about 60 degrees.
11. The delivery device of claim 1, wherein at least one of the plurality of curves describes an arc of greater than about 90 degrees.
12. The delivery device of claim 1, wherein the handle and the shaft are reversibly attached.
13. The delivery device of claim 1, including a connector located at the distal end of the shaft for attaching to an end of the implant.
14. The delivery device of claim 13, wherein the connector is formed integral to the shaft.
15. The delivery device of claim 14, wherein the connector includes a slot formed in the shaft.
16. The delivery device of claim 14, wherein the slot extends from a surface of the shaft radially into the shaft and axially in a distal direction to form a substantially L-shape.
17. The delivery device of claim 13, wherein the connector includes a plug portion for interfitting with a receptacle on the end of the implant.
18. The delivery device of claim 13, wherein the connector includes a receptacle portion for interfitting with a mating connector on the end of the implant.

19. A delivery device for delivering an implant to an anatomical site in a body of a patient, the device comprising,
a handle, and
a shaft having proximal and distal ends, the proximal end being connected to the handle and the distal end including a substantially straight portion bent at an angle relative to the shaft.
20. The delivery device of claim 19, wherein the distal end of the shaft includes a substantially straight portion bent at an angle relative to the shaft and the bend being located along about a distal most 25% of the shaft.
21. The delivery device of claim 20, wherein the angle is determined to accommodate a pubic bone of a patient.
22. The delivery device of claim 20, wherein the bend is in a direction toward a pubic bone of a patient to reduce likelihood of inadvertently puncturing internal organs.
23. The delivery device of claim 20, wherein the angle relative to the shaft is about 90 degrees.
24. The delivery device of claim 20, wherein the angle relative to the shaft is greater than about 90 degrees.
25. The delivery device of claim 20, wherein the angle relative to the shaft is less than about 90 degrees.
26. The delivery device of claim 19, wherein the handle and the shaft are reversibly attached.
27. The delivery device of claim 19, including a connector located at the distal end of the shaft for attaching to an end of the implant.

28. The delivery device of claim 27, wherein the connector is formed integral to the shaft.
29. The delivery device of claim 28, wherein the connector includes a slot formed in the shaft.
30. The delivery device of claim 28, wherein the slot extends from a surface of the shaft radially into the shaft and axially in a distal direction to form a substantially L-shape.
31. The delivery device of claim 27, wherein the connector includes a plug portion for interfitting with a receptacle on the end of the implant.
32. The delivery device of claim 27, wherein the connector includes a receptacle portion for interfitting with a mating connector on the end of the implant.
33. A delivery system for delivering an implant to an anatomical site in a body of a patient, the system comprising,
an implant having first and second ends, and
a delivery device comprising
a handle, and
a shaft having proximal and distal ends and shaped to describe a plurality of curves substantially in a single plane along its length, the proximal end of the shaft being attached to the handle.
34. The delivery system of claim 33, wherein the implant includes a sling for treating urinary incontinence.
35. The delivery system of claim 34, wherein the sling is configured for placement at a midurethral anatomical site in the body of a patient.

36. The delivery system of claim 33, wherein the distal end of the shaft includes a substantially straight portion bent at an angle relative to the shaft, the bend being located along about a distal most 25% of the shaft.
37. The delivery system of claim 36, wherein the angle is determined to accommodate a pubic bone of a patient.
38. The delivery system of claim 36, wherein the bend is in a direction toward a pubic bone of a patient to reduce likelihood of inadvertently puncturing internal organs.
39. The delivery system of claim 36, wherein the angle relative to the shaft is about 90 degrees.
40. The delivery system of claim 36, wherein the angle relative to the shaft is greater than about 90 degrees.
41. The delivery system of claim 36, wherein the angle relative to the shaft is less than about 90 degrees.
42. The delivery system of claim 33, wherein a most distal one of the plurality of curves includes a concave portion and a convex portion and the bend is formed toward the concave portion.
43. The delivery system of claim 33, wherein at least one of the curves describes an arc of greater than about 45 degrees.
44. The delivery system of claim 33, wherein at least one of the plurality of curves describes an arc of greater than about 60 degrees.

45. The delivery system of claim 33, wherein at least one of the plurality of curves describes an arc of greater than about 90 degrees.
46. The delivery system of claim 33, wherein the handle and the shaft are reversibly attached.
47. The delivery system of claim 33, including a connector located at the distal end of the shaft for attaching to the first end of the implant.
48. The delivery system of claim 47, wherein the connector is formed integral to the shaft.
49. The delivery system of claim 48, wherein the connector includes a slot formed in the shaft.
50. The delivery system of claim 48, wherein the slot extends from a surface of the shaft radially into the shaft and axially in a distal direction to form a substantially L-shape.
51. The delivery system of claim 47, wherein the connector includes a plug portion for interfitting with a receptacle on the end of the implant.
52. The delivery system of claim 47, wherein the connector includes a receptacle portion for interfitting with a mating connector on the end of the implant.
53. A method of delivering an implant to an anatomical site in a body of a patient, the method comprising,
 inserting into a body of a patient a shaft having proximal and distal ends and shaped to describe a plurality of curves substantially in a single plane along its length,
 attaching the distal end of the shaft to a first end of an implant, and
 positioning the implant at an anatomical site within the body of the patient.

54. The method of claim 53 comprising inserting the shaft into the body of the patient suprapubically.
55. The method of claim 53 comprising inserting the shaft into the body of the patient prepubically.
56. The method of claim 53 comprising introducing the implant into the body of the patient transvaginally.
57. The method of claim 53, wherein the implant includes a sling for treating urinary incontinence and the method includes positioning the sling at a midurethral location.
58. A method of delivering an implant to an anatomical site in a body of a patient, the method comprising,
 inserting into a body of a patient a shaft having proximal and distal ends, the proximal end being connected to the handle and the distal end including a substantially straight portion bent at an angle relative to the shaft,
 attaching the distal end of the shaft to a first end of an implant, and
 positioning the implant at an anatomical site within the body of the patient.
59. The method of claim 58 comprising inserting the shaft into the body of the patient suprapubically.
60. The method of claim 58 comprising inserting the shaft into the body of the patient prepubically.
61. The method of claim 58 comprising inserting the shaft into the body of the patient transobturally.

62. The method of claim 58 comprising introducing the implant into the body of the patient transvaginally.
63. The method of claim 58, wherein the implant includes a sling for treating urinary incontinence and the method includes positioning the sling at a midurethral location.
64. The method of claim 60, wherein the implant includes a sling with first and second ends for treating urinary incontinence and the method includes positioning the sling in a loop around a midurethral location with the ends of the sling extending from the midurethral location along an anterior surface of the pubic bone of the patient.